IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with <u>underlining</u> and deleted text with ~~strikethrough~~.

Please AMEND the paragraph beginning at page 2, line 18, as follows:

The wavelength demultiplexer ~~202~~ <u>207</u> at the optical receiver 202 separates the multiplexed signals received from the optical transmitter 201 through the optical transmission line 203 into the signals corresponding to the wavelengths λ_1 to λ_k, respectively. These optical signals having the wavelength of λ_1 to λ_k, respectively, are converted to corresponding electrical signals by the optical-electrical converter 208, and then the SOH of the electrical signals is terminated by the SOH terminating unit 209. The electrical signals having their SOH ~~been~~ terminated are transmitted to a further stage (not shown in Fig. 1) on <u>an</u> each <u>(i.e., individual)</u> channel basis. Thus, the data comprising the electrical signals for each of the channels CH_1 to CH_k can be transmitted from the optical transmitter 201 to the optical receiver 202 over the signal optical transmission line 203.

Please AMEND the paragraph beginning at page 3, line 27, as follows:

Furthermore, in some of the conventional transmission system<u>s</u>, erroneous bits included in the transmission data cannot be corrected when parity bits are contained in the data. One solution for improving a capability of correcting the erroneous bits in the data is to increase the number of the error correction bits added to the transmission data. However, this solution may be not practical, because a considerably high transmission rate is required for increasing the number of error correcting redundant bits to be added to the transmission data.

Please AMEND the paragraph beginning at page 4, line 1, as follows:

Another possible solution is to insert the error correction bits into reserved bits within the SOH. The reserved bits means that those bits are reserved for a variety of future applications. In this case, since a lot of redundant bits are to be inserted into some particular locations in the SOH, a problem may occur that a size of a circuit comprising <u>a</u> transmission device, such as the transmitter 201 and the receiver 202, is enlarged. This solution has a further drawback in that the error correction bits, which have been already assigned to the reserved bits, cannot be

made use of, if the reserved bits are decided to be used for one of the future applications.

Please AMEND the paragraph beginning at page 10, line 2, as follows:

The transmitting-end station 1 further includes the phase alignment unit 6 that is connected to the encoder 5 and which together performs a data generating function. The encoder 5 provides a signal of all n bits comprising the k data from the channels and the generated (n-k) error correction bits to the phase alignment unit 6. The phase alignment unit 6 compensates for a delay due to the error correction coding so as to phase all the n bits. The phase alignment unit 6 may be, for example, a delay circuit capable of aligning a delay time appropriately. The signals comprising the n bits in phase are then passed to the electrical-optical converter 7, which is also included in the transmitting-end station 1. The electrical-optical converter 7 converts the electrical signals of the n bit into optical signals having wavelengths λ_1 to λ_n, respectively.

Please AMEND the paragraph beginning at page 11, line 20, as follows:

The electrical signals received by the decoder 13 are formed by k bits, each corresponding to one of the channels CH_1 to CH_k, and (n-k) error correction bits. Then the decoder 13 performs a data regenerating function, which includes error correction decoding by means of the k bits representing the data from the channels CH_1 to CH_k and the (n-k) error correction bits and sends the decoded signals to the SOH termination unit 14, which is also included in the receiving-end station 2. The SOH termination unit 14 terminates the SOHs and delivers the signals with the SOHs to a succeeding device (not shown in Fig. 2) as data representing the data coming from the channels CH_1 to CH_k.

Please AMEND the paragraph beginning at page 14, line 12, as follows:

A second embodiment of an optical transmission system according to the present invention is shown in Fig. 5. As shown in Fig. 5, the optical transmission system comprises a transmitting-end station 21, a receiving-end station 22, an optical transmission line connecting the transmitting-end station 21 and the receiving-end station 22. The transmitting-end station 21 includes an SOH inserting unit 24, a parity generator 25, a phase alignment unit 26, an electrical-optical converter (OS) 27 and a wavelength-multiplexing unit 28. The receiving-end

station 22 includes a wavelength-demultiplexing unit 31, an optical-electrical converter (OR) 32, a parity detector 33, an SOH terminating unit 34 and an error correction unit. In Fig. 5, the encoding unit and its function, as in Fig. 2, are incorporated in the parity generator 25 and the decoding unit and its function, as in Fig. 2, are incorporated in the parity detector 33.

Please AMEND the paragraph spanning pages 14-15, as follows:

At the transmitting-end station 24, the SOH inserting unit 24 adds an individual SOH (Section Over Head) to each transmission data coming from k channels CH_1 to CH_k and supplies the k transmission data with the individual SOH to the parity generator 25. The parity generator 25 calculates a parity bit for the supplied k transmission data and outputs the calculated parity bit together with the k transmission data, and thus, passing (k+1) data to the phase alignment unit 26. The phase alignment unit 26 compensates for a delay caused by the parity generator 25 and sends resulting in-phase (k+1) data to the electrical-optical converter 27. The electrical-optical converter 27 converts the in-phase (k+1) data to (k+1) optical signals having different wavelengths λ_1 to λ_{k+1} and passes the optical signals to the wavelength-multiplexing unit 28. The wavelength-multiplexing unit 28 multiplexes the (k+1) optical signals and sends the multiplexed signals to the optical transmission line 23. In this case, the parity bit calculated for the k transmission data on the channels CH_1 to CH_k corresponds to the vertical parity.

Please AMEND the paragraph spanning pages 19-20, as follows:

The transmitting-end station 41 includes a frame generating and SOH inserting unit 44, an encoder 45, an electrical-optical converter (OS) 46 and a wavelength-multiplexing unit 47. The receiving-end station 42 includes a wavelength-demultiplexing unit 51, an optical-electrical converter (OR) 52, a memory unit 53, a decoder 54, an SOH terminating unit 55 and a top-of-frame ("TOF") detector 56.

Please AMEND the paragraph beginning at page 32, line 17, as follows:

The transmitting-end station 111 includes an encoder 114, an identification ("ID") signal-inserting unit 115, a multiplexing unit 116 and an electrical-optical converter (OS) 117. The receiving-end station 112, includes an optical-electrical converter (OR) 118, a separator

119, an identification ("ID") signal detector 120 and a decoder 121.